ABSTRACT OF THE DISCLOSURE

A method for setting a cut-through optical path in an optical network system is proposed. At first, a destination side edge node device which confirmed the transfer of a packet to a terminal accommodated by the present node device or to an access system network notifies the open resource information of the present node device to a transmission side edge node device. Then the transmission side edge node device determines the optimum allocation of an optical path to be set on the transfer route based on the open resource information notified by the destination side edge node device and the core node device. Then, according to the allocation optical path determined in the previous step, the transmission side edge node device, the core node device, and the destination side edge node device set the optical path which omits the packet transfer processing (layer 2 and layer 3 processing) in transit nodes.